UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,498	04/22/2004	Kenneth Ma	BP2903	6948

51472 7590 05/12/2011
GARLICK HARRISON & MARKISON
P.O. BOX 160727
AUSTIN, TX 78716-0727

EXAMINER	
THOMAS, JASON M	
ART UNIT	PAPER NUMBER
2423	

NOTIFICATION DATE	DELIVERY MODE
05/12/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

MMURDOCK@TEXASPATENTS.COM
GHMDocketing@cpaglobal.com
ghmptocor@texaspatents.com

Office Action Summary	Application No.	Applicant(s)	
	10/829,498	MA, KENNETH	
	Examiner	Art Unit	
	Jason Thomas	2423	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 February 2011*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *26-52* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *26-52* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 26-52 have been considered but are moot in view of the new ground(s) of rejection.

Applicants argue, "The NAS system of claim 40, in comparison to Simmons, fits within any one of the home user sites of Simmons." (see pg. 13). More specifically in contrast, "Simmons teaches, referring to FIG. 1 as an example, a transaction server 10 that is coupled to the Internet which is also used to deliver content from any one of a plurality of content providers sites to any one of a plurality of home user sites." (see pg. 12).

In the interest of compact prosecution the examiner now relies upon Tsao who teaches a NAS system for providing services such as an online movie theatre, online educational training classes, over a local area network designed to offer the privacy that an internet connection may not offer. While this reference is silent regarding "home user sites", the claims as recited are not so specific as to limit the claims to a home environment, as such the examiner is not precluded from interpreting the ability of the NAS system of Tsao to function using a LAN network as meeting the claims as recited.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 26-28, 34, 35, 40-42 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsao, (U.S. Pub. No. 2003/0029900 A1) in view of Simmons et al., (U.S. Pub. No2001/0039659 A1), Reininger et al., (U.S. Pat. No. 6,404,738 B1), Vitikainen et al., (U.S. Pub. No. 2003/0065802 A1), Kenner et al., (U.S. Pat. No. 5,956,716) and Summers et al., (U.S. Pub. No. 2010/0023972 A1).

Regarding claims 26, 40 and 41: Tsao discloses a method for producing audiovisual programming in a digital media format to a remote playback device comprising: a two part networked attached storage (NAS) system including a first block which stores media content (see e.g. [0019]); transmits from the first block to a second block 18 of the NAS system (i.e. client), the media content as streaming media over a local network (see e.g. [0031], [0062] see also where Tsao anticipates using wireless links in the place of a LAN connection); and receiving, at a second block of the NAS system, the media content over the local network to enable playback of audiovisual programming stored on the first block of the NAS system (see e.g. [0021], [0028], [0031-33] where real time streaming and playback is inherent to the ability to provide video on demand (VOD) services) but is silent regarding: receiving media content from remote sources or doing so at a first data rate; determining end-to-end quality of service for playback of the audiovisual

programming stored on the first part of the NAS system by evaluating a content creation source, a transmission media, end device playback technology and media type; protecting the stored media content by, at least one, scrambling and encrypting the media content using an encryption that is unique to the NAS system; transmitting the protected media content as streaming media over a local network based upon the determined end-to-end quality of service at a second data rate that is greater than the first data rate; decrypting and descrambling the protected media content to produce unprotected media content; decoding the unprotected media content to produced decoded media content; or generating output video based upon the decoded media content.

In analogous art for content delivery, Simmons teaches what reads on a media protection module for protecting media content by both scrambling by encoder 72 and encrypting by encryptor 74 the media content 75 and for transmitting the protected media content 20 over network 11 to be received, decrypted by decryptor 61, and descrambled by decoder 60 to produce an un-protected media content which is then generated for display by a video display interface 40 to be shown on display unit 42 (see e.g. [0022], [0043], [0049], [0050] for using an encryption that is unique to the content delivery system; see also [fig. 2, 32] for a storage medium for storing content). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Tsao used to prepare the media content for transmission, by providing content protection through the scrambling and encrypting of the media content prior to

transmission, as taught by Simmons, in order to ensure that rights of the content creator are protected.

Simmons however does not teach receiving media content from remote sources or doing so at a first data rate; determining end-to-end quality of service for playback of the audiovisual programming stored on the first part of the NAS system by evaluating a content creation source, a transmission media, end device playback technology and media type; or transmitting the protected media content as streaming media over a local network based upon the determined end-to-end quality of service at a second data rate that is greater than the first data rate.

In analogous art, Reininger teaches a system for providing content to a client using the dynamic allocation of bandwidth to control transmission quality priorities by using profiles and satisfaction indexes which evaluate a hierarchy (a highest satisfaction index) of content creation sources and transmission medium to provide the desired soft-QoS parameters which maximize the satisfaction index of active connections (see [abstract], [col. 3, ll. 40-62], [col. 4, ll. 15-25], [cols. 4-5, ll. 60-8], [col. 6, ll. 46-56], [col. 7, ll. 5-11]). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt the delivery system of Tsao, to include a system for managing the bandwidth and transmission of media content to the client device based on a priority logic, as taught in Reininger, in order to provide a dynamic means of guaranteeing the best quality for each and every client, as individually determined based on transmission considerations to

ensure that the demands of the clients can be efficiently met (see [abstract], [col. 10, ll. 15-27]).

Reininger however is silent with respect to considering the performance requirements based upon the end device playback technology; receiving media content from remote sources or doing so at a first data rate; and transmitting the protected media content at a second data rate that is greater than the first data rate.

In analogous art for media content delivery, Vitikainen teaches identifying parameters associated with the playback capabilities of the receiving device so that the media content which is transmitted, can be modified to optimally comply with the receiving device (see [abstract], [0020], [0023], [0044], [0050] where such parameters are associated with the quality of service). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify the means by which quality and performance parameters are established and implemented, by enabling the client device technology parameters, as taught in Vitikainen, to be considered as a factor of the hierarchical determinations made to provide a user defined QoS, as similarly taught in Reininger, because the quality of the content transmitted to an end device, is also a significant factor in determining the necessary settings to meet the requirements of a pre-established desired satisfaction index and the expectations of the user.

Vitikainen however does not teach receiving media content from remote sources or doing so at a first data rate and transmitting the protected media content at a second data rate that is greater than the first data rate.

Kenner, who discloses a system for content delivery, teaches a system where a storage and retrieval unit (SRU), local to the client device, which stores media content for streaming to a user terminal, can receive content from a remote device to be stored on the local SRU and then delivered at some later time to a client terminal (see e.g. [cols. 8-9, ll. 51-14] where a local SRU is analogous to a NAS in that it delivers content to a client terminal via a network connection). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Tsao, by including remote content sources which can provide fresh content to the local network storage device, as taught by Kenner, in order to provide a easy and efficient way for users or content distributors to update content which is available for viewing.

Kenner however does not teach receiving media content at a first data rate and transmitting the protected media content at a second data rate that is greater than the first data rate.

In analogous art for content delivery, Summers teaches managing bandwidth usage by using the extra available bandwidth to download media content at a slower-than-real-time rate to populate a consumers content storage so that the content will be available for later playback (see e.g. [0086]). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined teachings by enabling content which is received from a remote source, as taught by Kenner and which is to be streamed to a client device in real time, as taught by both Kenner and Tsao, to be received at a first rate which is

slower-than-real-time, as taught by Summers, in order to optimize the use of bandwidth and reduce network congestion at peak downloading times.

Regarding claim 27: The combined teachings of the aforementioned prior art teach the ability to create a hierarchy based on providing a dynamic allocation of bandwidth to control transmission quality priorities by using profiles and satisfaction indexes which evaluates said hierarchy (a highest satisfaction index) of content creation sources and transmission media to provide a desired of soft-QOS parameters (see Reininger [fig. 4], [abstract], [col. 3, ll. 40-62], [col. 4, ll. 15-25], [cols. 4-5, ll. 60-8], [col. 6, ll. 46-56], [col. 7, ll. 5-11]) where the content creation source correlates to the expected quality of video content.

Regarding claim 28: The combined teachings of the aforementioned prior art teach the content and transmission media aware NAS system wherein the first part defines a hierarchy of transmission media including data packet networks, in-structure dedicated wired coupling, wireless communication links and further defines an associated bandwidth for each (see Reininger [abstract], [col. 3, ll. 40-62] for bandwidth adjustments to associate (renegotiate) a bandwidth based on wireless and wired connection requirements, see also [cols. 1-2, ll. 66-12] where such adjustments include that of data packet networks).

Regarding claims 34 and 46: The combined teachings of the aforementioned prior art teach storing the media content and transmitting said media content wherein the NAS utilizes a proprietary formatting system to preclude reading of the stored materials by other devices (see Simmons e.g. [0040] where being

"uniquely dynamically encrypted such that it can only be played back on the requesting player/receiver" reads on utilizing a proprietary format).

Regarding claim 35: The combined teachings of the aforementioned prior art teach the method of claim 34 further including, as a part of producing media content in a digital media format, reconstructing the streaming media content into a non-proprietary and standard format (see Kenner e.g. [col. 27, ll. 11-22] where the media content can be stored in a proprietary format and also where the requesting device can request to receive the media content in a standard non-proprietary format such as an AVI or MPG formatted file).

Regarding claim 42: The combined teachings of the aforementioned art teach the second block further including a media processing module (see Tsao e.g. [fig. 1, 18]) communicatively coupled to receive the encrypted media content over the local network to enable real-time playback (see Tsao e.g. [0031] for VOD services) of media content stored on the first block of the NAS, system, the media processing module further including: a decryption module for, at least one of, decrypting and descrambling the protected media content to produce unprotected media content (see Simons e.g. [fig. 2] for a decrypting and/or descrambling protected media content) a media content decoder for decoding the unprotected media content to produced decoded media content (see Simmons e.g. [fig. 2] for decoding unprotected media content); a display processor for generating output video based upon the decoded media content (see Simmons e.g. [fig. 2] for a video display interface which reads on a display processor); wherein the NAS system

employs Quality of Service (QoS) operations to prioritize communications; wherein the first block of the NAS system evaluates a hierarchy of content creation sources, a hierarchy of transmission media, and a hierarchy of end device playback technology along with specified quality of service requirements as a part of determining allocated bandwidth and transmission priority (see Reininger e.g. [abstract], [col. 3, ll. 40-62], [col. 4, ll. 15-25], [cols. 4-5, ll. 60-8], [col. 6, ll. 46-56], [col. 7, ll. 5-11] for a system for providing content to a client using the dynamic allocation of bandwidth to control transmission quality priorities by using profiles and satisfaction indexes which evaluate a hierarchy (a highest satisfaction index) of content creation sources and transmission medium to provide the desired soft-QoS parameters which maximize the satisfaction index of active connections); and wherein the second block of the NAS system stores received audiovisual programming for playback on a playback device (see Simmons e.g. [fig. 2, 32] for storing content for playback; see also Summers e.g. [0086] for storing content for playback]).

3. Claims 29, 30, 43 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsao in view of Simmons, Reininger, Vitikainen, Kenner, Summers and Gerszberg et al., (U.S. Pat. No. 6,452,923 B1) and Kim, (U.S. Pub. No. 2002/0082057 A1).

Regarding claims 29 and 43: The combined teachings of the aforementioned prior art teach providing multimedia content to devices based on the device parameters in a type of hierarchical form such that the capability of the

receiving device determines the quality level or type of transmitted multimedia content (see Vitikainen [abstract], [0007-0009]) but does not teach doing so with an standard display TV, high definition TV, portable digital video recorder, wired high fidelity sound system, wireless headphones, wired headphones and handheld display devices however Reininger teaches where the use of a standard or high definition (SD/HD) Television, PVR and PC monitor are well known means of displaying media contents (see e.g. Reininger [cols. 6-7, ll. 63-10] where standard definition is implicit).

Gerszberg teaches using a speaker system capable of broadcasting high fidelity sound (see [col. 9, ll. 34-43] where using a hi-fi system is well known in the art to transmit high quality audio). Kim teaches where the use of wired and wireless headphones are a well known means of presenting media to listeners (see [5-8]). Therefore, at the time the invention was made, it would have been obvious to one of ordinary skill in the art to provide a means for establishing a level or type of media transmissions, as taught in Reininger when servicing receiving devices such as stand television, portable PVRs, or handheld display devices, as taught in Itoh, or HDTVs as taught in Smith, or hi-fi sound systems, as taught in Gerszberg, or wired and wireless headphones as taught in Kim, because these types of display and auditory devices are well known in the art to be used to present media to users.

Regarding claims 30 and 44: The combined teachings of the aforementioned prior art teach the content and transmission media aware NAS system wherein the hierarchy of end device playback technology further includes

associated display resolution parameters (see Reininger [col. 3, ll. 40-52], [col. 8, ll. 35-48] where associates a display resolution with the resized media which is transmitted).

4. Claims 31, 37, 45, 47-49 and 50-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsao in view of Simmons, Reininger, Vitikainen, Kenner, Summers and Rudd, (U.S. Pub. No. 2002/0152173).

Regarding claims 31, 37, 45, 50 and 51 : The combined teachings of the aforementioned prior art do not teach the content and transmission media aware NAS system wherein the NAS evaluates digital rights management parameters to evaluate whether a public key infrastructure (PKI) code is enabling and whether an end device is an authorized device for the PKI code.

Rudd teaches a system which is capable of evaluating digital rights management (DRM) parameters to determine if a device is an authorized device based on public key information such that only an authorized device (which can regulate usage according to the DRM parameters) can receive (copy) an original electronic work (see [236], [237], [616-621]). At the time the invention was made, it would have been obvious to one of ordinary skill to use such DRM parameters, as taught in Rudd, when designing a system which provides media content to clients, because by using digital rights management the electronic works which are stored the use of the clients can be controlled and protected (see [3]).

Regarding claim 47: The combined teachings of the aforementioned prior art teach the content and transmission media aware NAS system wherein the NAS

evaluates previous playback to prevent the same file from be played by more than one device at any time including the NAS only producing to one device at a time (see Simmons [abstract] for a media system capable of storing and delivering media; see also Tsao [abstract] where a NAS device is used as a media server; see also Rudd [abstract] where only one original work can exist at a given time).

Regarding claim 48: The combined teachings of the aforementioned prior art teach the content and transmission media aware NAS system wherein the NAS is operable to produce a subsequent copy to any playback device only after determining that a previously produced copy has been, removed, deleted, or destroyed (see Rudd [33] for the concept of the creation of a new original file if the previous original was destroyed).

Regarding claim 49: The combined teachings of the aforementioned prior art teach the content and transmission media aware NAS system wherein the NAS is operable delete a file copy in conjunction with producing the file to another device if the other device has file storage capacity (see Rudd [3], [7], [abstract] for the ability to move a file from one location to another which requires creation of a new original and the deletion of previous original such that only one original work exist at a given time).

Regarding claim 52: The combined teachings of the aforementioned prior art teach the content and transmission media aware NAS system wherein the NAS is operable register the ripping or copying status into a central repository to disable user ripping the same content again in another network unless the first copy is

deleted from the NAS (see Rudd [abs], [3] for where the device has a central repository which is used to control all actions to be performed on an electronic work).

5. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsao in view of Simmons, Reininger, Vitikainen, Kenner, Summers and Greaves et al., (U.S. Patent No. 6,185,688 B1).

Regarding claim 32: While the prior art teaches transmissions over a LAN or wireless connection, the combined teachings of the aforementioned prior art are silent regarding transmitting over a home based cable network and wherein the method includes transmitting the streaming media content over the home based cable network.

Greaves teaches a home based network environment capable of effectively inhibiting unauthorized use of activity outside of an authorized (home) network environment (see col. 1, ll. 42-65]). Therefore, at the time the invention was made, it would have been obvious to one of ordinary skill in the art to provide communication across a home based network and further to preventing file access outside of a home network boundary, as taught in Greaves, when providing a computing device which is capable of storing and delivering media content, as taught in the combined teachings, because media content created and stored for later delivery to members of a home should not be available to individuals outside of the home network for the privacy of the household members.

1. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsao in view of Simmons, Reininger, Vitikainen, Kenner, Summers and Bridgelall, (U.S. Pat. No. 6,895,255 B1).

Regarding claim 33: The combined teachings of the aforementioned prior art do not teach wherein the transmission media of the local network between the first and second block of the NAS system includes at least one of a Bluetooth wireless network and an IEEE 802.11 standard protocol wireless network and wherein the method includes transmitting the streaming media content over one of the Bluetooth and 802.11 standard protocol wireless networks.

Bridgelall teaches a dual mode wireless data communication device which is capable of transmitting data on both Bluetooth and IEEE 802.11 signals (see [abstract], [col. 1, ll. 50-61]). Therefore, at the time the invention was made, it would have been obvious to one of ordinary skill in the art to provide the capability to communicate data over either Bluetooth and/or IEEE 802.11, as taught in Bridgelall, when providing a system capable of providing data over a wireless signal, because both IEEE 802.11 and Bluetooth are useful for wireless networking (see [col. 1, ll. 15-33]).

2. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsao in view of Simmons, Reininger, Vitikainen, Kenner, Summers and Iverson, (U.S. Pat. No. 6,052,379).

Regarding claim 36: The combined teachings of the aforementioned prior art do not teach the method of claim 26 further including providing port based bandwidth

priority wherein a device producing digital media on a first port is given priority over a device producing digital media on a second port.

Iverson teaches a priority scheme for assigning priority to a port (see [col. 1, ll. 66-11], [claim 1]). At the time the invention was made, it would have been obvious to one of ordinary skill in the art to use such a scheme or prioritizing ports, as taught in Iverson, when providing a means of delivering data requiring a portion of bandwidth to a client, as taught in the aforementioned art, because the method of prioritizing ports can provide a more efficient way to transmit multiple outputs of data streams.

3. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsao in view of Simmons, Reininger, Vitikainen, Kenner, Summers and Mangold et al., (U.S. Patent No. 6,668,324 B1).

Regarding claim 38: The combined teachings of the aforementioned prior art do not teach wherein the NAS only produces audiovisual programming having copy restrictions to a PKI enabled device that does not have copying capability for making permanent copies of the streaming media content.

Mangold teaches a device which can not make any copies such that after the device has received data (such as video) the data gets thrown away (see [col. 10, ll. 45-55]). At the time the invention was made, it would have been obvious to one of ordinary skill in the art to only send media content to a device that can not copy or save data, as taught in Mangold, when providing a system capable of delivering media content to clients, as taught in Simmons, because by only sending the media

content to devices that cannot reproduce or save the media content the sender has effectively provided an alternative means protect data from unauthorized use (see [col. 1, ll. 18-25], [col. 1, ll. 46-48]).

4. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsao in view of Simmons, Reininger, Vitikainen, Kenner, Summers and Ananda et al., (U.S. Patent No. 6,931,549 B1).

Regarding claim 39: The combined teachings of the aforementioned prior art do not teach wherein the NAS evaluates safety of a transmission link and, based upon the evaluated safety of the transmission link, provides a specified amount of protection for streaming media content which is to be propagated over the transmission link.

Ananda teaches a means of verifying the transmission link between two computers, evaluating the safety and providing protection for the data which is to be exchanged over the link (see [abstract], [col. 9, ll. 7-26], [col. 9-10, ll. 61-15]). At the time the invention was made, it would have been obvious to one of ordinary skill in the art to provide a means of verifying the integrity of the transmission link, as taught in Ananda, when transmitting media content which is privately owned, as taught in he combined teachings of the aforementioned art, because without providing a secure means of transferring data from one computer to another it is possible for public clients to intercept private communications.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Thomas whose telephone number is (571) 270-5080. The examiner can normally be reached on Mon. - Thurs., 8:00 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Koenig can be reached on (571) 272-7296. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

J. Thomas

/Andrew Y Koenig/
Supervisory Patent Examiner, Art Unit 2423